



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/797,555

03/10/2004

Eun-Tae Won

678-1216

4407

66547

7590

12/11/2008

THE FARRELL LAW FIRM, P.C.

333 EARLE OVINGTON BOULEVARD

SUITE 701

UNIONDALE, NY 11553

EXAMINER

BEHNCKE, CHRISTINE M

ART UNIT

PAPER NUMBER

3661

MAIL DATE

DELIVERY MODE

12/11/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/797,555

**Applicant(s)**

WON ET AL.

**Examiner**

CHRISTINE M. BEHNCKE

**Art Unit**

3661

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 4, 5, 9, 14, 15 and 48-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 5, 9, 14, 15 and 48-50 is/are rejected.
- 7) ☒ Claim(s) 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-083)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This office action is in response to the Amendment and Remarks filed 29 August 2008, in which claims 1, 4, 5, 9, 14, 15, and 48-50 were presented for examination.

#### ***Response to Arguments***

Applicant's arguments with respect to claims 1 and 14 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Objections***

Claim 14 is objected to because of the following informalities: it is unclear whether the "at least one" extends to "a speed information" and "a Global Positioning System (GPS) receiver, a gyro sensor, and an electronic map". Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4, and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Lutter, US 6,792,351.

(**Claim 1**) Lutter describes a method for exchanging vehicle management information on an ad-hoc network between vehicles comprising the steps of: receiving a vehicle management information message including vehicle management information having at least one of vehicle position, direction, and speed information from a source vehicle having an event, and a routing condition (column 4, lines 7-17, 30-41);

searching at least one of vehicle position, direction and speed information including in the received vehicle management information (column 4, lines 18-29); identifying whether its own vehicle management information of the source vehicle satisfies the searched at least one of vehicle position, direction and speed information (column 4, lines 18-41); displaying the event of the source vehicle on a monitor based on a result of the identifying step (column 4, lines 18-29 and column 3, lines 26-33); and routing the received vehicle management information message of the source vehicle to vehicles after identifying the routing condition (column 4, lines 30-40).

(**Claim 4**) Lutter further describes the step of including at least one of position and direction of the source vehicle in the vehicle management information (column 4, lines 7-18 and column 2, line 64-column 3, line 17); and creating the vehicle management information using at least one of the vehicle driving information and vehicle safety information of the source vehicle (column 2, line 64-column 3, line 17).

(**Claim 9**) Lutter further describes wherein the routing condition includes ID (identification) and routing area information of a routing vehicle, and a message reception condition includes ID information of a destination vehicle (column 2, lines 35-45).

#### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

**Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over Lutter in view of Kiendl et al., US 6,654,681.

Lutter describes method and apparatus for forming an ad hoc network between vehicles to communicate vehicle management information and transmitting vehicle status information. Lutter does not specifically describes vehicle safety information based on the own vehicle and nearby vehicles. However, Kiendl et al. teaches a vehicle ad hoc network that teaches vehicles transmitting messages containing vehicle safety information based on the vehicle's own driving information and the vehicle driving information of the nearby vehicles (column 2, lines 15-30. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the method Lutter with the teachings of Kiendl because as Kiendl suggests, transmitting information regarding vehicle safety status increases the efficiency and relevancy of the information transmitted, allowing vehicles to receive and determine the most efficient route of travel and warn drivers of potential unsafe driving events (column 3, lines 39-59 and column 4, lines 23-39).

***Claim Rejections - 35 USC § 103***

Claims 14 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lutter in view of Breed, US 2003/0191568.

**(Claim 14)** Lutter describes an apparatus for exchanging vehicle management information on an ad-hoc network between vehicles, the apparatus included in one of the vehicles (figure 1) and comprising: a sensor for collecting vehicle driving data information including at least one of vehicle position, direction, and speed information of a source vehicle (column 4, lines 7-17, 30-41) and speed information of the source vehicle and including a GPS receiver, and an electronic map (figure 4); and a

communicator for receiving a vehicle management information message having a vehicle management information (transmitter 52 and receiver 50), including at least one of vehicle position, direction and speed information from the source vehicles (column 4, lines 7-17, 30-41), a routing condition and event of the source vehicle (column 4, lines 7-17, 30-41), for searching at least one of vehicle position, direction and speed information included in the received vehicle management information (column 4, lines 18-29), for identifying whether the collected vehicle driving information satisfies the searched at least one of vehicle position, direction and speed information (column 4, lines 18-41), for transmitting the event of the source vehicle to a controller for displaying the event of the source vehicle (column 4, lines 18-29 and column 3, lines 26-33), if the collected vehicle driving information satisfies the searched at least one of vehicle position, direction and speed information (column 4, lines 18-41), and for routing the received vehicle management information message to the nearby vehicles after identifying the routing condition (column 4, lines 30-40). Lutter does not describe wherein the apparatus comprises a gyro sensor. However, Breed teaches that a gyro sensor is a well known inertial sensor for inertial navigation systems to generate three dimensional position information, acceleration, and velocity ([0049]). It would have been very obvious to one of ordinary skill in the art to include a gyro sensor in the navigation apparatus for the suggested purpose as a backup sensor activated and used when the GPS satellites are blocked ([0049]).

(**Claim 49**) Lutter further describes wherein the event of the source vehicle is one of warning of a possibility of collisions or forward traffic accidents (figures 5 and 6, column 4, lines 18-40).

***Claim Rejections - 35 USC § 103***

**Claim 15** is rejected under 35 U.S.C. 103(a) as being unpatentable over Lutter in view of Breed, in further view of Impson et al., US 6,708,107.

Lutter describes the method and apparatus as previously described, but does not detail the form of the message transferred between vehicles. Impson et al. teaches an ad-hoc communication network between vehicles, wherein the message transmitted contains in a header a routing condition (figure 5, column 5, lines 30-61), and in the main body of the message vehicle management information of the source vehicle (column 5, lines 5-17). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the method and apparatus of Lutter with the teachings of Impson et al. because as Impson suggests using a message format standard among vehicles enables efficient cooperative participation between vehicle systems, allowing the system to target the system needs and quickly discard non-relevant information (column 2, lines 14-43).

***Claim Rejections - 35 USC § 103***

**Claims 48 and 50** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lutter in view of Breed, and in further view of Nuesser, US 6,870,487.

Lutter in view of Breed describes the apparatus as applied to claim 14. Lutter further describes wherein the transmitted information is used to update the data stored

in the vehicle, map routes (figures 6 and 7). Neither reference explicitly describes updating before transmitting the message. However, Nuesser teaches a system for transmitting data packets between vehicles, the data packets including vehicle management information (figure 4) and a routing condition (figures 3 and 4), wherein the vehicle management information and routing condition are updated before transmitting the vehicle management information message (column 3, lines 9-25 and column 9, lines 25-40). It would have been obvious to one of ordinary skill in the art at the time of the invention to update the vehicle management information with received data before transmitting the message to check for accuracies, as Nuesser suggests, adjust the message information routing condition counter or included data based on sensed data (column 25-40).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of



the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTINE M. BEHNCKE whose telephone number is (571)272-8103. The examiner can normally be reached on 8:30 am- 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. M. B./  
Examiner, Art Unit 3661

/Thomas G. Black/  
Supervisory Patent Examiner, Art Unit 3661